

TECHNICAL DATA SHEET

The S-218 is a high-power subwoofer system, designed to fulfil the most demanding applications where scalability and single-enclosure use are as important as sonic performance. S-218 subwoofers are inherently scalable – they can be used as single units, or in large numbers for filling arena or stadium shows. The substantial enclosure houses a pair of reflex-loaded 4.5" voice coil, 18" (457mm) neodymium LF cone drive units. Like all EM Acoustics products, headroom is key. Peak-to-peak linear cone travel is 28mm, meaning large amounts of low frequency information can be produced by a surprisingly small and lightweight subwoofer enclosure.

FEATURES AND BENEFITS

- Incredible power density
- Exceptional frequency and impulse response ensure fast, accurate low frequencies
- 2 x 18" neodymium high-excursion LF drive units
- Impact and weather resistant black, and textured white finishes as standard
- RAL colour and weather protection options
- Tour-grade castors included
- Protective floor runners and matching stacking recesses
- Protective cover accessories available



APPLICATIONS

- Large scale live music reinforcement
- Theatre
- Houses of worship
- Conference, corporate and audio-visual
- Theme parks

The robust enclosure is constructed from premium 18mm (3/4") multi-laminate Birch plywood – rebated, screwed and glued together. The enclosure is finished in black impact and weather-resistant polyurethane, or white textured paint as standard, however RAL colour matching as well as weather protection options are available if required. Due to the extremely high cone travel available, enclosure rigidity was key in the design – as such the inside of the enclosure, including the enormous port in the centre – are rigidly braced in all dimensions.

Input is provided via a single NLT4MP connector on the rear. Runners are provided on the bottom of the enclosure and on one end to protect the paint finish when in use either lying down or stood on-end, and recesses on the top of the enclosure allow stable stacking of arrays. Eight flush bar handles and tour-grade castors are also fitted as standard. Lastly, a tough

perforated steel grille backed with acoustically-transparent black mesh protects the drive units from damage, which can be quickly removed for service purposes.

The S-218 requires an active crossover to function correctly – although the choice of filter points is very wide, allowing the user to tailor the response to exactly what is required. Cardioid DSP program settings are also available to create arrays with significant rejection to the rear of the subwoofers.

The S-218 requires external active high/low pass filters and a single amplifier channel capable of delivering 3000-4500W RMS into a 2 ohm load. For optimal results, the DQ20 Advanced System Amplifier should be used.

ENCLOSURE OPTIONS

S-218 enclosures are available as standard in black 3-step impact resistant polyurethane finish, or white water-based Warnex textured paint. Custom RAL colours can be supplied on request; extended lead times and set up costs apply. S-218 enclosures can also be supplied as an outdoor version (OD), finished in the same black weather-resistant 3-step polyurethane coating, with stainless steel grilles and weather-resistant connector options, and other cabinet details bespoke to the customer's request. Custom RAL colours are also available for outdoor options by specific quote. Please contact your local EM Acoustics representative for details.



TECHNICAL SPECIFICATIONS

ENCLOSURE TYPE:	High power reflex subwoofer
DIMENSIONS (HxWxD):	550 (21.7) x 1300 (51.2) x 850 (33.5) mm/(ins)
NET/SHIPPING WEIGHT:	102/108kg (224.4lbs/237.6lbs)
FREQUENCY RESPONSE ¹ :	28Hz – 150Hz ±3dB
SENSITIVITY ² :	100dB
DISPERSION ³ :	Omnidirectional
DRIVE UNITS:	2 x 18" (457mm) neodymium LF cone drive units
LOUDSPEAKERS PER AMPLIFIER	DQ6*: 1 per channel, DQ10*: 1 per channel, DQ20: 1 per channel
POWER HANDLING:	2000W RMS, 4000W program
MAXIMUM SPL ⁴ :	137dB continuous, 143dB peak
NOMINAL IMPEDANCE:	2 ohms
CROSSOVER:	External active
CONNECTORS:	1 x Neutrik® speakON™ NLT4
ENCLOSURE:	18mm (3/4") multi-laminate Birch plywood – rebated, screwed and glued, Finished in impact and weather resistant black polyurethane, or textured white paint
ENCLOSURE HARDWARE:	8 x flush bar handles, touring runners & mating recesses, tour-grade castors
GRILLE:	Mesh-backed perforated steel
OPTIONS:	Colours / weather protection
ACCESSORIES:	TC-S218 padded touring cover
SPARE PARTS	DU-1802 18" (457mm) neodymium drive unit RFG-S218 replacement grille

NOTES ON MEASUREMENT CONDITIONS:

¹Measured on-axis at 2m in an anechoic environment and referenced to 1m. ²Measured in half space at 2m with 4W sine wave input and referenced to 1m. ³Nominal dispersion, measured in an anechoic environment and averaged over stated bandwidth. ⁴Calculated and verified by subjective listening test of familiar program material.

*Whilst the DQ6 and DQ10 will operate the S-218, they will not allow the subwoofer to reach its full potential and as such should only be used in low SPL environments.

ENGINEERING DRAWING

